



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,239	11/12/2003	Dennis R. Christensen	CEDC 1002	6388
321	7590	06/01/2006	EXAMINER	
SENNIGER POWERS			MOORE, KARLA A	
ONE METROPOLITAN SQUARE				
16TH FLOOR			ART UNIT	PAPER NUMBER
ST LOUIS, MO 63102			1763	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,239	CHRISTENSEN, DENNIS R.	
	Examiner Karla Moore	Art Unit	1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on March 10, 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3,6-17 and 23-35 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 23-32 and 35 is/are allowed.

6) Claim(s) 1,2,7-11,13-17,33 and 34 is/are rejected.

7) Claim(s) 3,6 and 12 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 12 November 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 10-11, 13-14 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,276,855 to Seddon in view of U.S. Patent No. 5,534,068 to Beach et al.

3. Seddon discloses a deposition enclosure for use in a vapor deposition apparatus having a cleanroom side and a service side (column 2, rows 28-34) substantially as claimed, said deposition enclosure comprising: a structure defining a deposition chamber (Figures 1 and 2, 11) for receiving and item to be coated (Figure 2, 53); an inlet (47) for flow of coating material into the deposition chamber; an outlet (column 1, rows 60 and 62) for flow of coating material out of the deposition chamber; and at least two doors (21-23) attached to said structure to allow access to said deposition chamber, at least one of said doors (21 and 22) allowing access to the deposition chamber from the cleanroom side of the apparatus for placement of an item to be coated in the deposition chamber and for removal of a coated item from the deposition chamber.

4. However, while Seddon does teach that the apparatus can comprise various types of material sources (column 2, rows 62-65), Seddon fails to explicitly teach the apparatus further comprising a vaporizer for vaporizing solid coating material and a pyrolysis furnace for heating the vaporized coating material to form a pyrolyzed gaseous coating material.

5. Beach et al teach that parylene coatings are ideally suited for use as a conformal external coating in a variety of fields due to their ability to provide thin films and conform to substrates of varied shapes (column 2, rows 40-44). Beach et al. also teach parylene coating apparatus typically include both a vaporizer and a pyrolysis furnace for supplying the processing material (column 2, row 64 through column

3, row 3). The vaporized coating material flows into the deposition enclosure via an inlet (30) and from the enclosure via an outlet (116).

6. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a vaporizer and a pyrolysis furnace in Seddon in order to form thin film parylene coatings conformal to substrates of varied shapes as taught by Beach et al.

7. With respect to claim 2, Beach et al. further teach the use of a filter (24) connected to said outlet for receiving gaseous coating material discharged from the deposition chamber. As described above, Seddon teaches that in order to maintain a clean environment all structures except wafers to be loaded should be accessed via the service side (column 1, rows 25-28 and column 2, rows 28-34).

8. With respect to claim 4, the shroud would necessarily be located in or adjacent an opening in the wall of the cleanroom in order to be in proximity to the deposition enclosure to serve its purpose.

9. With respect to claims 5, in Seddon, an access door (21 and 22) is configured to allow access to the deposition chamber from inside a cleanroom and said service door being configured to allow access to the deposition chamber from outside the cleanroom. A service door (23) is configured to allow access to the deposition chamber from outside of the cleanroom.

10. With respect to claim 11 and 13-14, as described above, said at least two doors comprise an access door (21 and 22) and a service door (23), said access door configured to allow access to the deposition chamber from inside a cleanroom and said service door being configured to allow access to the deposition chamber from outside the cleanroom. Said service door is connected to said structure on the service side of the apparatus (see Figure 2). Said access door is connected to said structure on the cleanroom side of the apparatus (see Figure 2).

11. With respect to claims 33 and 34, the courts have ruled that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969).

Art Unit: 1763

12. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seddon and Beach et al. as applied to claims 1-2, 10-11, 13-14 and 33-34. above, and further in view of U.S. Patent No. 6,086,952 to Lang et al.

13. Seddon and Beach et al. disclose the invention substantially as claimed and as described above.

14. However, Seddon and Beach et al. fail to teach two control stations, one accessible from inside the cleanroom and one accessible from outside the cleanroom. Nor do Seddon and Beach et al. disclose an indicator for displaying status of the apparatus, said indicator being visible form inside the cleanroom.

15. Lang et al. teach the use of two control stations (column 13, rows 38-67), one accessible from inside the cleanroom and one accessible from outside the cleanroom for the purpose of allowing both technicians and operators to have access to the system. Further, an indicator (display screen) for displaying status of the apparatus is also visible from inside the cleanroom. The controllers and indicator are provided for dictating and displaying processing parameters for a particular process.

16. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided two controllers and a display in Seddon and Beach et al. in order to dictate and display parameters of a particular process as taught by Lang et al.

17. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seddon and Beach et al. as applied to claims 1-2, 10-11, 13-14 and 33-34 above in view of U.S. Patent No. 5,855,726 to Soraoka et al.

18. Seddon and Beach et al. disclose the invention substantially as claimed and as described above.

19. However, Seddon and Beach et al. fail to teach said access door and service door are attached by hinges.

20. Soraoka et al teach the use of hinged doors for the purpose of providing access to processing equipment (column 14, rows 21-49).

21. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided hinged doors in Seddon and Beach et al. in order to provide access to the processing equipment as taught by Soraoka. Examiner also notes that the courts have ruled that an

Art Unit: 1763

express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. In re Fout, 675 F.2d 297, 213 USPQ 532 (CCPA 1982).

22. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seddon as applied to claims 1-2, 10-11, 13-14 and 33-34 above in view of U.S. Patent Publication No. 2002/0102400 A1 to Gorokhovsly et al.
23. Seddon and Beach et al. disclose the invention substantially as claimed and as described above.
24. However, Seddon and Beach et al. fail to teach either the access door or the service door comprises a window for viewing.
25. Gorokhovsly et al. teach the use of windows (viewing ports) provided in the door of a processing chamber for the purpose of diagnostic assessment and control of the process (paragraph 40).
26. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided windows in Seddon and Beach et al. in order to diagnostically access and control the process as taught by Gorokhovsly et al.

Allowable Subject Matter

26. Claims 23-32 and 35 are allowed.
27. Claims 3, 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
28. The following is an examiner's statement of reasons for allowance (and indication of allowable subject matter): The prior art of record fails to teach or fairly suggest a vapor deposition apparatus as claimed and as described that further comprises at least two doors for accessing the deposition chamber and a shroud distinct from the cleanroom wall at least partially surrounding one but not both of said at least two doors to allow isolated access to said one door and the deposition chamber from inside the room. In addition, not other piece of properly combinable art was located that taught this feature and the requisite motivation for combination with the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

29. Applicant's arguments filed 10 March 2006, with respect to above rejected claims, have been fully considered but they are not persuasive.
30. In response to applicant's argument that Seddon is nonanalogous art, and therefore not properly combinable with Beach et al., it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both the Seddon and Beach et al. references disclose coating apparatus. Further, each is particularly concerned with isolation of the actual coating chamber of the apparatus from the effects of the external environment. Thus, each of the references is appropriate prior art for the claimed invention, which is also concerned with isolation of a coating chamber from the effects of the external environment.

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1763

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Primary Examiner
Art Unit 1763
26 May 2006